



TIMBER SALE PRESCRIPTION

GENERAL

Date 08/01/2011	Forest, Mineral and Fire Management Unit Baraga
Timber Sale Number (if applicable) 11-010-11-01	Sale Name (or prescription name) T. P. Hardwood

LOCAL CONTACT

Name Tom Seablom	Telephone (906) 485-1966
Email Address seablomt@michigan.gov	FAX () -

Map of Project Area Attached

LEGAL DESCRIPTION

T52N R36W Section(s) 3 Description SESE

Year of Entry: 2011 Compartment(s): 32 Stand Number(s): 4

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 37 Source: OI GPS Other _____

Payment will be made on the basis of these estimated acres.

TREATMENT & OBJECTIVE

STAND #	COVER TYPE	ACRES	BA	TREATMENT	MANAGEMENT OBJECTIVE
4	M9	37	146	Selection	Northern Hardwoods

PRESCRIPTION

Background

1. Initial BA ranges from 120 to 210 BA. Prescribed to be marked to 70-90 BA. Favored oak, white pine, and hemlock where present.
2. An after marking cruise shows that it was marked down to 100 BA.

To Be Completed on This Prescription

1. Establish plot centers.
2. Mark and record data on "in" trees.

See cruising section for specific instructions.

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
N/A	

CONTRACT WORK CAN BEGIN

Immediately Date: _____

CONTRACT WORK MUST BE COMPLETED BY Date 30 days from PO issue

PAINT LINE WORK

This is included in the bid This is not included in the bid

Paint line work to be performed: (See attached map for locations)

TYPE OF LINE	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR	
Private boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yellow	<input type="checkbox"/> Other:
Stand type line	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Other:

Exclusions to mark and why

Standards for marking lines against private land

AREA CALCULATION

This is included in the bid This is not included in the bid

UNIT	METHOD	STANDARD
Sale	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Stand	<input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	

Special Instructions:

TIMBER CRUISING SPECIFICATIONS

This is included in the bid This is not included in the bid

Required Basal Area Factor: 10 20 Other: 5

Cruise Line Directions Systematic plot location with a random start. We must have 20 points per unit, unless otherwise approved by the DNR. Plot locations must be GPS'ed and also provided to the DNR on a map.

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
North Twenty (Black Paint required)	1	N/a X N/a
South Twenty	1	N/a X N/a
		X
		X
TOTAL NUMBER OF CRUISE POINTS	40	

Cruise Special Instructions:

Establish temporary plots. Plot center will be set with something like a wooden stake, re-bar, PVC pipe or some other approved device. PVC may work best as plot center staff can be placed inside the pipe. The center stake must stick out at least 4" above the ground, be flagged, painted, numbered and easy to see. Numbering will start with 1 and end with 20. Two additional flags should be placed overhead or nearby, with 'tails' at least 2' and numbered so the plot may be easily located.

The trees for harvesting have already been marked with orange paint and some of the marked trees have also been numbered (hereafter called pre-numbered trees). All trees, whether 'marked', 'marked & pre-numbered' or 'leave', that are 'in' using a Limiting Distance Table with a Basal Area Factor of 5, will be marked, numbered and measured. Start each point from North and go clockwise. Marking will consist of a horizontal line (about 6") at dbh and a tree number anywhere on the tree, but clearly visible from plot center which does not obscure other markings or numbers already on the tree. A 4.5' staff would be very useful in consistently and quickly identifying DBH. Tree numbering will start at 1 for each plot. Azimuth and distance to the center of the tree at the base from the plot center will be recorded along with species and dbh to the nearest 10th inch (rounding down) with a d-tape. Also, record the tree as 'marked', 'marked & pre-numbered', or 'leave'. If the tree is 'marked & pre-numbered', record the pre-numbered number for the tree along with the new tree number. There can be no mistakes on 'in' and 'out' trees. When trees are near the edge of the stand, the 'walkthrough' method (Ducey et al 2004) will be used. If a tree is double counted using the 'walkthrough' method, then two numbers will be needed on the tree, e.g. 7 and 8 and the tree will be recorded twice on the plot, e.g. one record for tree 7 and one record for tree 8.

We need at least 25% or 1 out of every 4 trees as 'marked & pre-numbered'. If on the plot, there are less than 25% 'marked & pre-numbered' trees, then you will need to select one of the 'marked' trees and add unique numbers until you reach at least 25%. For example, for every 4 trees marked, there needs to be one pre-numbered tree or one unique numbered tree. For each 20 acre stand, start with the number 700 for the unique tree number. For example, if a plot has 6 'marked' trees and only one of the 'marked' trees is 'marked & pre-numbered', then an additional numbered tree would be added (6 divided by 4 = 1.5 numbered trees, round up to 2). Randomly select one of the 'marked' trees for numbering and paint the tree with a unique tree ID. To determine the tree or trees to number, use a random number table, dice, or other DNR approved method.

Stakes will be provided by the contractor. Aerosol paint will be supplied by the DNR. A different color paint will be used then the color used to mark the stand.

The North Twenty will require some additional work. Paint 'dots' were placed on the sawlog trees when the area was marked. The 'dots' need to be covered up. Any 'in' tree with 'dots' will have the 'dots' covered by a black or brown paint, probably a mixture of marking paint (not aerosol) supplied by the DNR. Cover the 'dots' in such a manner that no one can tell how many 'dots' were present. For example, on a one 'dot' tree, you may need to apply paint to a larger area then just the 'dot' so that it is not obvious that it was a one 'dot' tree.

Note that your tally card would have the following columns: Tree #, Species, DBH, Azimuth, Distance, Marked/Pre-number/leave (enter M for Marked, the pre-numbered number/unique tree number or L for Leave). Plot number could be a column or could be noted on the top of the tally card if one card were used per plot.

Tally sheets or an electronic data recorder will be provided by the contractor. The final product to the DNR will be in Excel, a hardcopy map and GPS plot locations.

TIMBER MARKING SPECIFICATIONS

This is included in the bid This is not included in the bid

Precise specifications to be delineated at pre-work meeting with DNR staff

Total Merchantable Residual BA (Basal Area): _____ (Minimum _____ to Maximum _____)

TREATMENT		NUMBER	SIZE
Regeneration Gaps Per Acre			
Girdled Trees Per Acre			
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs			
Sawbolts			
Pulpwood			

TYPE OF WORK	WORK TO BE DONE	NOT APPLICABLE	PAINT COLOR
Trees marked to leave	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Green <input type="checkbox"/> Other
Trees marked to cut	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Orange <input type="checkbox"/> Other

TALLY INTENSITIES	
SPECIES / PRODUCT	RATIO
	1 :
	1 :
	1 :
	1 :

SPECIAL MARKING INSTRUCTIONS

RESTRICTIONS

1. Forest Management Division must to be able to identify who did what where on the timber sale.

PAINT

1. Call Tom Seablom at (906) 485 - 1966, to make arrangements for paint.
2. Paint will be supplied from the Ishpeming Field Office.
3. Contractor's work schedule must coincide with the DNR work schedule for paint supply.
4. The DNR will not be available on weekends or evenings.

DELIVERABLES

1. A list of names that marked or cruised each payment unit.
2. A summary of paint used (in quarts).
3. Tally summaries for each plot in Excel.
4. GPS files for any GPS work.